Amendments to the Claims

The listing of claims below is intended to replace all prior listings of the claims in the present application.

1-67 (canceled)

68. (currently amended) A method of regulating protein kinase C activity comprising:

contacting human protein kinase C selected from the group of isozymes α, β, and γ with a mammalian biliverdin reductase or a fragment thereof with protein kinase C regulatory activity, wherein the mammalian biliverdin reductase is encoded by a nucleic acid molecule that hybridizes to the complement of SEQ ID NO: 2 or 5 under hybridization conditions comprising a temperature of 65°C and a hybridization medium comprising 1 M Na^+ buffer and remains hybridized following wash conditions comprising a temperature of 65°C and a wash medium comprising 0.2X SSC buffer, and wherein the fragment thereof ~~that~~ comprises the amino acid sequence of SEQ ID NO: 18, 19, 34, or 35 ~~16 or 17~~, said contacting being effective to regulate activity of the human protein kinase C.

69-70 (canceled)

71. (previously presented) The method according to claim 68, wherein said contacting is carried out with rat or human biliverdin reductase.

72. (previously presented) The method according to claim 71, wherein the biliverdin reductase is human biliverdin reductase comprising an amino acid sequence according to SEQ ID NO: 1 or SEQ ID NO: 3.

73. (currently amended) The method according to claim 68, wherein said contacting is carried out with the fragment of the mammalian biliverdin reductase that comprises the amino acid sequence of SEQ ID NO: 18, 19, 34, or 35 ~~16 or 17~~.

74. (previously presented) The method according to claim 68, wherein said contacting is carried out in a cell.

75. (previously presented) The method according to claim 74, wherein the cell is *in vivo*.

76. (previously presented) The method according to claim 74, wherein the cell is *in vitro*.

77. (currently amended) The method according to claim 73, wherein the fragment of the mammalian biliverdin reductase consists of ~~comprises~~ the amino acid sequence of SEQ ID NO: 18, 19, 34, or 35.